ABSTRACT

A powered air cleaning system (31) and a method of making the system are disclosed. The system comprises a flow path (22) extending through the system from an air inlet (4) to a clean air outlet (5). A motor-driven fan (24) located along the flow path draws particulate debris laden air into the inlet and rotates it about an axis (A-A) to form a rotating flow that stratifies the debris laden air with the heaviest particles in the outermost orbits of the rotating flow. An ejector port (8) is provided for ejecting particulate debris laden air from the stratified rotating flow in the system to the environment. An air filter (9) located within the rotating flow and across the flow path upstream of the outlet filters air from the innermost orbits of the stratified rotating flow. The system is formed of a plurality of components (2, 3) separately mountable in remote locations (32, 33) in a device to be supplied with clean air. The components are interconnected with an intermediate pipe assembly (34).